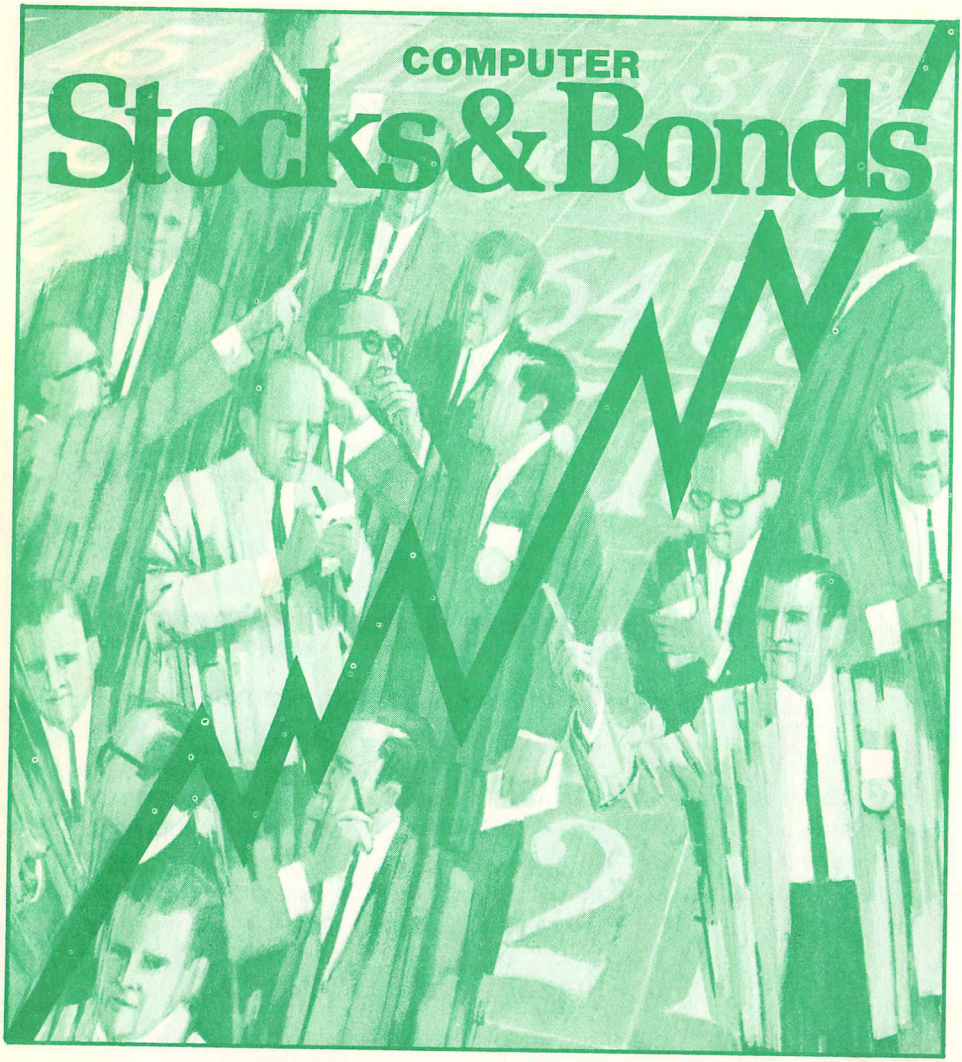

COMPUTER STOCKS & BONDS PLAYING INSTRUCTIONS

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The Avalon Hill Game Company, Baltimore, Md.

FOR: ATARI 400/800®, 32K Memory Cassette
Apple II® with Applesoft® BASIC, 32K Beyond BASIC Cassette
PET CBM®, 16K Memory Cassette
TRS-80®, Model I or Model III, 16K Memory Cassette 32K Diskette

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Computer Stocks & Bonds transports you to Wall Street as you attempt to gain wealth and affluence by skillfully buying and selling securities. The main objective in this multi-player game is to shrewdly invest $5,000 in the game's 10 securities. Trading lasts for ten game years, the wealthiest player at the conclusion of the tenth year wins!

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During each of the ten years play, players invest in securities at the current MARKET PRICE for the year. As a guide in selecting investments, players should consult the SECURITIES REVIEW in this manual and the PRICE HISTORY graphs within the program which display security performance throughout the game. All players begin the game with $5,000 cash in their portfolios. Player turn sequence after year one is determined by net worth, the wealthiest player going first each turn.

LOADING INSTRUCTIONS

ATARI 400/800 Cassette

Lift the cartridge door on your ATARI 400/800 computer and insert the COMPUTING LANGUAGE BASIC cartridge into the computer. Use the LEFT CARTRIDGE slot on the ATARI 800. Press the POWER switch on the side of the console ON. With SIDE ONE of the cassette up, put it into your ATARI CASSETTE RECORDER and press 'REWIND' until the tape stops moving.

To assure a successful load we suggest you advance the clear portion of tape (leader) until the brown magnetic portion is just visible to the left of the cassette head.
With the cassette inserted into the cassette recorder and using the keyboard type:

CLOAD

Then press the 'RETURN' key on the keyboard. You will hear one beep. Push 'PLAY' on the recorder and press the 'RETURN' key on the keyboard again. The recorder should start to move and the program will be loaded. By turning up the volume on your video screen you can hear the program being loaded. When the tape stops, the program has been transferred from the cassette tape to the computer's memory. 'READY' will appear on the screen.
Type; 'RUN' and press the return key to play the game. Should your video screen display the word 'ERROR', press the reset button at the top righthand corner of the keyboard and repeat the above loading instructions.

APPLE II Cassette

The APPLE program is located on SIDE ONE after the ATARI program. You must advance your cassette past the ATARI program before you can load the APPLE program. By listening to the tape you can distinguish between the two programs. The APPLE program is easily recognized by the relatively high pitch and 'pure' quality of the calibration tone at the beginning of the program. This tone is free of the characteristic ATARI high pitch buzz which is on then off as if each line of code is being loaded. Find the beginning of the APPLE program and position the tape to just after the start of the calibration tone. Set up the recorder for input. On the keyboard type:

LOAD (Don't hit return yet).

Press 'PLAY' on the recorder and immediately press 'RETURN' on the keyboard. A volume setting of '3' to '4' is suggested. The computer will start reading in your program. The computer will beep twice, once at the beginning of the program and once at the end. This program is not short and will take a few minutes to load. When you hear the second beep, type:

RUN

and press 'RETURN' to play the game.

ATTENTION APPLE II MICROCOMPUTER OWNERS:

The game instructions that follow apply (for the most part) to the ATARI, PET, and TRS-80 programs only. Fortunately, we have programmed all of the game instructions for the Apple version of Computer STOCKS & BONDS into the program itself. Thus, we

have designed Computer STOCKS & BONDS to especially take advantage of the strengths of each individual machine.

COMMODORE PET CBM

Turn the tape over so SIDE TWO is up. Insert the tape in your recorder and rewind to the beginning of the tape. When ready, type:

LOAD

and press the 'RETURN' button on the keyboard, then the 'PLAY' button on the recorder. The tape should start moving, and start loading your program. This program is not short, and will take several minutes to load. The computer will tell you when it finds the program and starts loading. When done, the computer will print 'READY', and the tape will stop. Type:

RUN

and press 'RETURN' to play the game.

TRS-80 Cassette

The TRS-80 Models I & III program is located on SIDE TWO after the PET CBM program. You must advance your cassette tape past the PET program before the TRS-80 program can be loaded. By pulling out the EAR and MIC jacks on your cassette recorder and listening to the tape, you can differentiate the PET program from the TRS-80 program. The PET sounds louder, yet has a lower pitch. The PET program lasts approximately a total of 4 minutes (if your tape deck has a counter and you start it at 0 at the beginning of the tape you'll find the TRS-80 program around 88.
There will be a portion of blank tape between the PET and TRS-80 programs, this blank portion is your cue to prepare to load the TRS-80 program.

Check that the volume is set to the proper level (between 5 and 6 is normal). Press 'PLAY' on the recorder, type:

CLOAD (For Model III only, enter: L after CASS?, then CLOAD)

and press 'ENTER' key on the keyboard. The recorder should start to move and your program will be loaded. This will be indicated by the flashing asterisk at the upper right corner of the screen. This program is not short, and will take several minutes to load. When the tape stops and the TRS-80 prints 'READY' on the screen, type:

RUN

and press 'ENTER' to play the game.

TRS-80 DISKETTE

Insert your diskette into your disk drive and 'BOOT' the system.

Model III owners must first convert the game program to Model III format.
See the 'PROCEDURE FOR CONVERSION' instructions enclosed.

PLAYING COMPUTER STOCKS & BONDS – ATARI, TRS-80, & PET

Computer Stocks & Bonds is a multi-player game, the maximum number is six for Atari and Apple, four for TRS-80, and three for PET.

Upon the 'Opening' of the stock market for year one the screen will announce whether the overall business and trading climate of the market has been bullish or bearish (except PET) and the relative net worth standings of the players. The turn number will appear in the right hand corner. Type a 'Q' to continue.

Next, the computer will ask you whether or not (type: 'Y' for YES, 'N' for NO) you wish to view the DIVIDEND ANNOUNCEMENT, AVALON HILL INTERNATIONAL NEWS BULLETIN, or STOCK SPLIT/BANKRUPTCY screen displays throughout the game. These three displays add spice to the play of the game. Whether you elect to view these

displays or not their effects will still be felt throughout the game.

If you answered 'Y' the first display will be DIVIDEND ANNOUNCEMENTS. This announces the dividend rates of securities in dollars per share. All of the securities at year one have a randomly assigned value. Central City Municipal Bonds can only be purchased in lots of one thousand.

SECURITIES REVIEW

Below is a general description of the ten securities of the game. Knowing their tendencies will aid you in preparing your portfolio.

CENTRAL CITY MUNICIPAL BONDS ***YIELD $5/share***
An AAA bond with a good yield. This investment represents extreme security and good income, but, of course, no appreciation.

GROWTH CORPORATION OF AMERICA ***YIELD $1/share***
A well established company with a phenomenal growth record. It is an expanding industry, spends a lot of money on research and is expected to continue its growth pattern. The Company's policy of reinvesting earnings causes low yield. The price-to-earnings ratio of this stock is extremely high.

METRO PROPERTIES, INC. ***NO YIELD***
An investment representing good prospects of high appreciation. No dividends are expected in the immediate future. However, the City's proposed Urban Renewal Program could have great effect on earnings.

PIONEER MUTUAL FUND ***YIELD $4/share***
A common stock income mutual fund offered by a large mutual fund company. It has a good yield of 4%. Stock in this fund represents a good, steady income, but only a fair appreciation investment.

SHADY BROOKS DEVELOPMENT ***YIELD $7/share***
A real estate investment representing extremely high income, but steadily depreciating capital assets.

STRYKER DRILLING COMPANY ***NO YIELD***
A stock representing extremely speculative investment. Profits go toward drilling new oil wells, so no dividends are expected. This stock could be worth rags or riches.

TRI-CITY TRANSPORT COMPANY ***NO YIELD***
A stock representing high appreciation investment prospect with a good stable outlook depending on the administrative ability and ambition of its respected, ethical and energetic young president. As all profits go back into the Company, dividends are not expected to be declared in the foreseeable future.

UNITED AUTO COMPANY ***YIELD $2/share***
A medium large company in the large, oligopolistic automobile industry. United Auto, like others in the industry, is subject to whims of public fancy. Stock in this company represents a somewhat speculative investment with a good growth pattern. Because it is popular with the investing public, it has a fairly high price-to-earnings ratio and low yield.

URANIUM ENTERPRISES, INC. ***YIELD $6/share***
A highly speculative, high income stock ideal for the short or medium term investor. Its long-term prospects are fair to poor.

VALLEY POWER & LIGHT COMPANY ***YIELD $3/share***
A stable, steadily growing public utility company located in a well established, healthy industrial area. Stock in this company represents a safe, medium yield, medium growth investment.

NOTE: Stocks performances are primarily based on the descriptions above.

If the market price of any of the stocks fall below $50.00, no dividends will be paid.

Central City Municipal Bonds however, always pays its interest yield regardless of market conditions.

After the dividend announcment, a news service bulletin will appear on your screen from over the wires of Avalon Hill International. The content of these bulletins will have an effect on the stock exchange and especially randomly chosen securities.

The STOCKSPLIT and BANKRUPTCY announcement follows the AHI News Bulletins. When the market price of any stock rises above $150.00 the Board of Directors of that company will usually declare a 2 for 1 stock split. Players owning shares in these companies will double the amount of shares they are holding. The value of each share will be divided in half.

If a stock price falls to 0, the company is declared bankrupt. Players owning stock in bankrupt firms lose whatever financial interest they had invested in the company. The company however, reforms upon the beginning of the next turn and starts afresh with a new price of $100.00.

Once the three announcement displays described above have run their course you will discover . . .
THE EXCHANGE IS NOW OPEN!
A message will flash across the ticker and you then may begin trading.

**********THE AVALON HILL STOCK EXCHANGE**********

GRO 114. . .PIO 103. . .SHA 105. . .UNI 115. . .URA 98. . .VAL 111. . .ME

PLAYER # 1 YEAR # 1 CASH BALANCE 5000

Annual Yield	NAME	POSITIONS SHARES	WORTH
5	CENTRAL CITY		
1	GROWTH CORP.		
4	PIONEER MUTL.		
7	SHADYBROOKS		
2	UNITED AUTO		
6	URANIUM		
3	VAL. P & L		
0	METRO PROP.		
0	STRYKR DRLG.		
0	TRI-CITY TRNPT.		
	DIVIDEND & INTEREST	NET WORTH	
	NAME OF STOCK:	TYPE 1ST 3 LETTERS	
	# OF SHARES:	OF NAME	

Above: The Player Position Screen

Once the exchange opens the PLAYER POSITION SCREEN for the first player will be displayed. Each player in order of highest to lowest net worth is given the opportunity to buy and sell stock.

Pet computer owners turn sequence will be done in the same order as performed in year one throughout the game.

Players should memorize their player number as they will be given only one chance per turn to make adjustments to their positions.

'Prompt' messages appear in the bottom right hand corner of the PLAYER POSITION SCREEN. These various messages are:

1) "Type / For The Next Player"
Typing a '/' will automatically pass the play to the next player. Each player will have only one opportunity per turn to BUY and SELL. Be sure that a player is finished trading before typing the '/'.

2) "Type Z to SELL
Type B to BUY"

There are two interactive modes; either a player is buying or selling stock.

Typing a 'B' will cause the computer to go into the buying mode and 'B' or 'BUY' will appear in the bottom left corner.

A player may purchase as many shares of stock as he or she has money to cover. The computer will stay in the same mode even if play is passed onto the next player. Thus, players need not enter 'B' or 'Z' for each buying or selling transaction respectively.

Typing a 'Z' will cause the computer to go into the selling mode and 'S' or 'SELL' will appear in the left hand corner.

A player may sell as many shares of stock that he owns. A player does *not* have to type Z for each sell transaction.

A player may switch from one mode to the other at any time.

3) "Type 1st 3 Letters of Name."

Once a player has chosen the stock he wishes to buy or sell, he types the first three letters of the stock's name. These letters will appear on the line "Name of Stock:". If a player makes a mistake in typing the name, either press the left arrow (←) key on TRS-80, Delete/Back S key on Atari or Delete key on PET or hit the Enter/Return key and start over. If he changes his mind after the stock name is typed, he should just hit the Enter key and retype the name of the new stock.

4) "Hit Enter when # is typed."

Once the stock name is typed, the player now types the number of shares he wishes to buy or sell. This will appear on the line "# of shares:". When the number is typed, the player must then hit the Enter/Return key. The computer will adjust the player's position, i.e., the stock and cash balance. Note: a player's net worth only changes from year-to-year to reflect the changes in the price of stocks he holds.

If a player types the wrong number he should hit the left arrow (←) key on TRS-80, Delete/Back S on Atari, or Delete on PET and retype the new number. After the transaction is completed, the player may start a new transaction or pass the play to the next player.

Other prompt messages which may appear are:

5) If a player attempts to buy more shares than he has the cash to buy, the following message will flash:

"You do not have enough cash"
"To buy that #. Type a new #."

The player should type a number he can afford.

6) If a player attempts to sell more shares than he owns, the following message will flash:

"You do not own that many."

The player should type a number which he does own.

7) If a player attempts to buy or sell Central City Municipal Bonds in the wrong denominations, the following message will flash:

"Bonds come in 1000 or 5000 lots."
"Type a new #."

The player should type 1000 or 5000.

At the conclusion of each game turn (year) *The Harford Road Journal* will give a market wrap up whereby the standings of each player will be shown.

PLAYING AID ROUTINES

There are two player-aid routines the player may call upon during his turn to help him in his buys and sells. He can call them only from the Player Position Screen. They are called the Price History Routine and the Bar Graph Analysis Routine. (TRS-80 and Atari only).

a. The Price History Routine.

If a player wishes to see the actual price history of a particular stock, he should use the following procedure:

i.) Instead of the stock name he should type the stock's analysis number and hit the Enter/Return key. The stock analysis numbers are:

GRO	= 1	VAL	= 6
PIO	= 2	MET	= 7
SHA	= 3	STR	= 8
UNI	= 4	TRI	= 9
URA	= 5		

Example: Name of Stock: 8
# of Shares:

Hit Enter key.

ii.) The ticker will show the price of the stock up to the current price (including any splits and/or bankruptcies). A '*' next to a price means the stock split in that turn; a 'B' next to a price means the company went bankrupt in that turn.

iii.) When a player is through with the price history he should type Q. The current price ticker will resume.

The player may call this routine in either the buy or sell mode.

b. The Bar Graph Analysis Routine *(Atari and TRS-80 programs only)*.

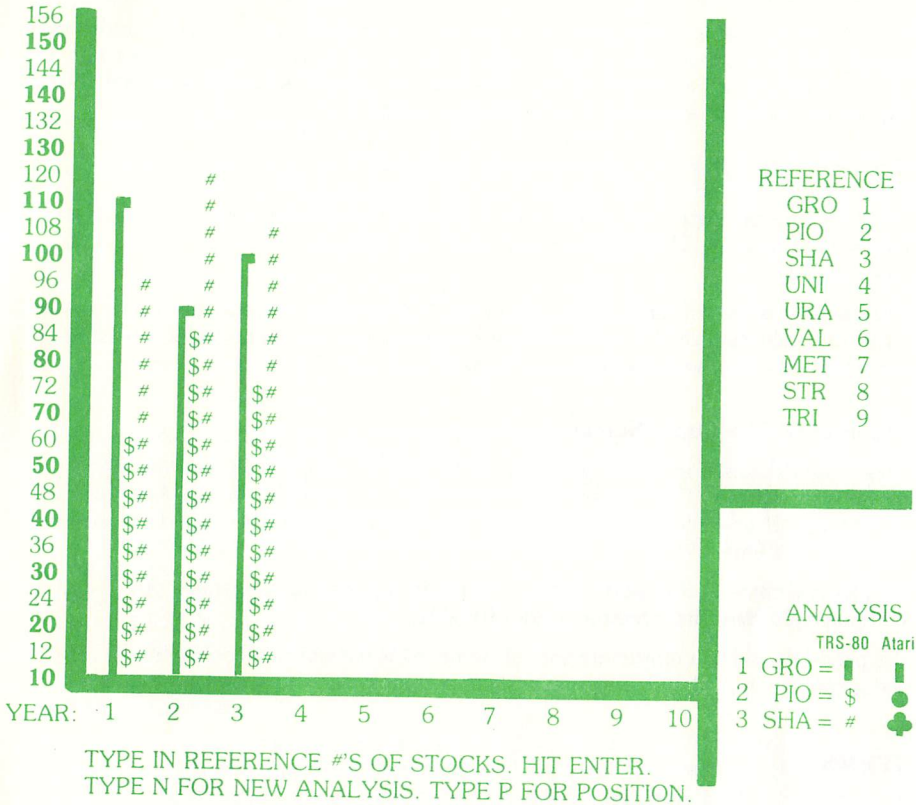
If the player wishes to see a bar graphical representation of the stocks, he should use the following procedure:

i.) Instead of typing the stock name he should type G and hit the Enter Key.

Example: Name of Stock: G
# of Shares:

Hit Enter/Return key.

ii.) The Player Position Screen will disappear and be replaced with the Bar Graph Analysis Screen.



In the example above, the player entered analysis numbers 1, 2, & 3 for the Growth, Pioneer, and Shady Brooks stocks respectively. The result is a bar graphical analysis of selected stocks' performances throughout the game (in the above example: three years).

iii.) The player should now type in the analysis numbers of one, two, or three stocks he wishes to view. The analysis numbers are listed on the right hand part of the screen.

iv.) As the numbers are typed the analysis number (TRS-80 only), stock mnemonic, and a symbol appear in the lower right hand corner.

v.) When the player has typed in the analysis numbers he should then hit the Enter/Return key. The computer will draw the graph for each stock for each year. Stocksplits and bankruptcies (represented by * and B respectively) will appear on the $12 row (on TRS-80) or $0 (on Atari) in the year these may have taken place.

vi.) If the player wishes to view other stocks he should type N. The computer will erase the old screen and replace it with a fresh one. Repeat steps iii, iv, v, & vi as many times as desired.

vii.) When a player is finished with the Bar Graph Analysis Routine he should type P. The Bar Graph Screen will be replaced with the player's position screen.

The Bar Graph Analysis Routine may be called in either the Buy or Sell mode. It may be called by any player in his turn.

The Market Wrapup Screen

After the last player is finished with his turn, he should type the / . The market Wrapup Screen will now appear. On it will be the stock price history of all the stocks plus the relative standings of the players for that turn. The next turn may not start until the following prompt message appears in the lower right hand corner:

"For Next Turn Type Q."

When this message appears and the players are through with the Market Wrapup Screen, they should type Q . The computer will loop back to the Turn Screen (Step 3) and the new turn begins.

The game lasts for ten turns. The computer will adjust player positions for a theoretical 11th turn (adjusting stock prices, splits & bankruptcies, and dividends & interest). The winner is the player with the highest net worth.

The End Of The Game Screen

This screen shows the relative positions of the players. The player with the highest net worth is the winner. Games played by more than three persons on the Atari computer should type 'P' to see the positions of all the players. The screen will only hold three player positions at a time.

To play the game again just type Y. If players do not wish to play again type N and the computer will clear the screen and print READY.

If a player should be unfortunate enough to have his net worth fall below $0, he is out of the game. Press / when that player's position comes onto the screen.

TERMS

SECURITY – A stock or bond.

BOND – An interest-bearing certificate issued by a private or municipal corporation, for the purpose of borrowing money. In the game, bonds are issued in $1,000 denominations.

INTEREST – Set percentage of bond's value paid to the investor.

STOCK – Shares or holdings in a corporate business enterprise attested by certificates of ownership.

DIVIDEND – Portion of a company's profit distributed to the stockholders.

SPLIT (or Stock Split) – The division of shares into a larger number. For example, if a company declares a 2-for-1 split, each shareholder receives free one additional share for each one he already owns; the price per share is halved. Usually this is done to make the stock easier to sell.

TRANSACTION – Purchase or sale of securities.

BEAR MARKET – A market where the general performances of securities are declining.

BULL MARKET – A market where the general performances of securities are advancing.

MARKET PRICE – The last reported price at which a stock or bond sold.

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QUESTIONS ON PLAY

The clarity of these rules has been verified by *Software Testers of Universal Microcomputer Programmers (STUMP)* and deemed *"complete"* in all facets of instruction. Please re-read them in areas that seem unclear at first reading. Questions on play can be answered by the factory *only* upon receipt of a self-addressed envelope bearing first-class postage.

IF YOU CANNOT LOAD THE PROGRAM

1. Check your equipment carefully to be sure that all cables and connections are correct.
2. Re-read the section in your computer's manual that tells you how to load software. Try to load software again.
3. If you can adjust the volume on your recorder, try different settings, both higher and lower.
4. If possible, load another program from a tape or disk you know works on your computer. This will prove that your equipment works. Try once more to load your game.
5. The normal reason software will not load is tape recorder or disk drive head misalignment. Your computer may be able to save and load programs on its own recorder, but be unable to read software made on a different recorder for this reason. Be sure your recorder heads are correctly aligned. Your local computer store or dealer can help you with this.

6. If the program still cannot be loaded, send the software, with a complete description of the problem (what type of computer you have, what the computer says, if anything, when you try to load the software or play the game, and what you did to try to get it to load.) to:

Avalon Hill Microcomputer Games
4517 Harford Road
Baltimore, Maryland 21214

Defective software will be replaced.

After the program is loaded

Once you have your program loaded, it is a good idea to make a backup copy (for your own use). Follow the normal procedure for saving a program in your computer's manual.

DESIGN CREDITS

Atari, PET, & TRS-80 version produced by 4-D. Programmed by David R. Megarry.
Apple version by Bob Garman
Based on the Avalon Hill Leisure Time Board Game STOCKS & BONDS

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